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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,655	12/08/2003	Srikanth Karimisetty	021756-005100US	4960
51206 7590 11/27/2009 TOWNSEND AND TOWNSEND AND CREW LLP/ORACLE TWO EMBARCADERO CENTER 8TH FLOOR SAN FRANCISCO, CA 94111-3834				
EXAMINER				
BETTT, JACOB F				
ART UNIT		PAPER NUMBER		
2169				
MAIL DATE		DELIVERY MODE		
11/27/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/731,655

Applicant(s)

KARIMISSETTY ET AL.

Examiner

Jacob F. B  tit

Art Unit

2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Remarks

1. In response to communications filed on 11 August 2009, claims 1, 12, 19, and 26 have been amended per the applicant's request. Claims 1-26 are presently pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7, 9-14, 18-21, 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieson, "Implementing Oracle Workflow", (2000) in view of Lec et al. (2004/0186860 A1).

As to claim 1, Mathieson teaches a computer-implemented method of committing a transaction to a database, the method comprising:

receiving, at a computer system hosting a database management system that manages the database, information defining an application event that, upon occurrence, causes the database management system to intercept database transactions instantiated between database applications and the database management system and generate from data identified in the database transaction an electronic record that requires an electronic signature (see Figure 1, "Creating a Purchase Order", and see Figure 3 "Start");

receiving, at the computer system, information defining one or more fields for the data identified in the database transaction to be stored in the electronic record (see figure 1, various fields are displayed that are stored in the database as part of the workflow);

detecting, at the computer system, a database transaction between a database application and the database management system (see Figure 1);

intercepting transaction data from the database transaction with the computer system prior to the database management system committing the database transaction to the database based on the application event monitored by the computer system that is triggered by the database transaction (see pages 9-10);

automatically creating an electronic record at the computer system from the intercepted transaction data prior to the database management system committing the database transaction to the database (see figure 11 and figure 12);

executing a rule associated with the application event at the computer system to determine whether an electronic signature is required to connote review of the electronic record created from the intercepted transaction data in order for the database management system to commit the database transaction to the database (see pages 2-3);

requesting the electronic signature using the computer system prior to the database management system committing the database transaction to the database based on a determination that an electronic signature is required (see pages2-3); and

committing the database transaction to the database using the computer system in response to receiving the electronic signature (see figure 3).

Mathieson does not distinctly disclose receiving, at the computer system, information that maps data from underlying database tables associated with the database transaction to at least some of the one or more fields; and creating a record according to a mapping between the data from underlying database tables associated with the database transaction to the at least some of the one or more fields.

However, Lee et al. teaches this, see paragraphs 0042-44. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Mathieson to include the teachings of Lee et al. because these teachings would allow for the data from the record to be stored into database tables making it so that data stored is easier accessed and stored in a smaller space than if each form was stored as its own document.

As to claim 2, Mathieson teaches wherein the electronic record comprises data generated from multiple tables of the database (see Figure 1, information of pull down menus from different tables and see pages 6-7, "Interface to CERN Databases").

As to claim 3, Mathieson teaches wherein the electronic record is stored in a common repository of electronic records that provides an audit trail that cannot be altered or disabled by users of the database (see Figures 11 and 12).

As to claim 7, Mathieson teaches further displaying at least some of the transaction data in the electronic record on a computer display based on the determination that an electronic

signature is required (see page 1, "web-based interface").

As to claim 9, Mathieson teaches further comprising obtaining and verifying the electronic signature (see page 2, "authorization password").

As to claim 10, Mathieson teaches wherein the rule requires a plurality of different electronic signatures and wherein, if execution of the rule results in a determination that a plurality of electronic signatures are required, requesting the plurality of electronic signatures prior to committing the data to the database (see page 3, "at least one signature to authorize payment").

As to claim 11, Mathieson teaches wherein, if the electronic signature is rejected or otherwise cannot be obtained, the database transaction is rolled-back and not committed to the database (see Figure 3, "End (Rejected)").

As to claim 12. (Currently amended) A computer system that manages electronic records stored in a database, the computer system comprising: a processor (see page 1); and a computer-readable memory coupled to the processor, the computer-readable memory storing a set of instructions (see page 1) executable by the processor [that when executed cause the processor] to:

receive information defining an application event that, upon occurrence, causes the processor to intercept database transactions instantiated between database applications and a database management system associated with a database and generate an electronic record that requires an electronic signature from data identified in the database transaction (see pages 9-10);

receive information defining one or more fields for the data identified in the database transaction to be stored in the electronic record (see figure 1, various fields are displayed that are stored in the database as part of the workflow);

detect a database transaction between a database application and the database management system (see figure 1);

intercept transaction data from the database transaction initiated between the database application and the database management system prior to the database management system committing the database transaction to the database based on the application event monitored by the processor that is triggered by the database transaction (see pages 9-10);

create an electronic record from the intercepted transaction data prior to the database management system committing the database transaction to the database (see figures 11 and 12);

execute a rule associated with the application event to determine whether an electronic signature is required to connote review of the electronic record created from

the intercepted transaction data in order for the database management system to commit the database transaction to the database (see pages 2-3); and

request the electronic signature prior to the database management system committing the database transaction to the database based on a determination that an electronic signature is required (see pages 2-3); and

commit the database transaction to the database in response to receiving the electronic signature (see figure 3).

Mathieson does not distinctly disclose receiving, at the computer system, information that maps data from underlying database tables associated with the database transaction to at least some of the one or more fields; and creating a record according to a mapping between the data from underlying database tables associated with the database transaction to the at least some of the one or more fields.

However, Lee et al. teaches this, see paragraphs 0042-44. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Mathieson to include the teachings of Lee et al. because these teachings would allow for the data from the record to be stored into database tables making it so that data stored is easier accessed and stored in a smaller space than if each form was stored as its own document.

As to claim 13, the applicant is directed to the citations for claim 2 above.

As to claim 14, the applicant is directed to the citations for claim 3 above.

As to claim 18, the applicant is directed to the citations for claim 9 above.

As to claim 19. (Currently amended) A computer-readable storage medium configured to store computer-executable code for managing electronic records stored in a database, the computer-readable storage medium comprising:

code [that receives] information defining an application event that, upon occurrence, causes database transactions instantiated between database applications and a database management system associated with the database to be intercepted and an electronic record that requires an electronic signature to be generated from data identified in the database transaction (see figure 1, “creating a Purchase Order”, and see figure 3 “Start”);

code [that receives] information defining one or more fields for the data identified in the database transaction to be stored in the electronic record (see figure 1);

code [that detects] a database transaction between database application and the database management system (see figure 1);

code [that monitors] for the application event that is triggered by the database transaction (see figure 12);

code [that intercepts] transaction data from the database transaction prior to the database management system committing the transaction to the database based on the application event that is triggered by the database transaction (see pages 9-10);

code [that creates] an electronic record from the intercepted transaction data prior to the database management system committing the database transaction to the database (see figures 11 and 12);

code [that executes] a rule associated with the event to determine whether an electronic signature is required to connote review of the electronic record created from the intercepted database transaction in order for the database management system to commit the database transaction to the database (see pages 2-3); and

code [that requests] the electronic signature prior to the database management system committing the database transaction to the database based on a determination that that an electronic signature is required (see pages 2-3); and

code [that commits] the database transaction to the database in response to receiving the electronic signature. (see figure 3).

Mathieson does not distinctly disclose code [that receives] information that maps data from underlying database tables associated with the database transaction to at least some of the one or more fields.

However, Lee et al. teaches this, see paragraphs 0042-44. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Mathieson to include the teachings of Lee et al. because these teachings would allow for the data from the record to be stored into database tables making it so that data stored is easier accessed and stored in a smaller space than if each form was stored as its own document.

As to claim 20, Mathieson teaches wherein the code for creating an electronic record further comprises code for creating electronic records in response to the occurrence of a predefined event (see Figure 11 and Figure 12, which display records of status information of documents).

As to claim 21, the applicant is directed to the citations for claim 3 above.

As to claim 25, the applicant is directed to the citations for claim 9 above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-6, 15-17, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieson in view of Lee et al. as applied to claims 1-3, 7, 9-14, 18-21, 25 above, and in further view of Bisbee et al. (U.S. patent application publication No. 2001/0002485 A1) and Bertino et al., "Integrating XML and Databases".

Claims 4 and 5 are rejected for the following reasons:

Mathieson fails to expressly disclose the use of XML Documents.

Bisbee et al. teaches the objects being stored as XML documents, see paragraph 0071. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use XML as a well-known standard which provides the advantage of being easily supported.

However, it is not expressly stated in the above mentioned references how the data is stored within the database. Bertino et al. teaches the storage of an unstructured XML document as a column of a table as a CLOB data type, see page 86 column 1. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include these features as it provides an organized method for storing the xml documents.

Also note, Mathieson teaches using "Oracle Workflow", and the document "Oracle Workflow Release 2.6.2 Business Event System and PL/SQL Development Guidelines" teaches that Oracle Workflow typically uses XML documents as see on page 15.

As to claim 6, Mathieson as modified, teaches wherein XML fields of the data are filled with the transaction data based on a predefined mapping of a data type definition to multiple data sources (see Bisbee et al. and Bertino et al. as cited above, where data in XML files is implicitly formatted using the mapping of a DTD, as the DTD defines how data is mapped and related in an XML file).

As to claim 15, the applicant is directed to the citations for claim 4 above.

As to claim 16, the applicant is directed to the citations for claim 5 above.

As to claim 17, the applicant is directed to the citations for claim 6 above.

As to claim 22, the applicant is directed to the citations for claim 4 above.

As to claim 23, the applicant is directed to the citations for claim 5 above.

As to claim 24, the applicant is directed to the citations for claim 6 above.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieson in view of Lee et al. as applied to claims 1-3, 7, 9-14, 18-21, 25 above, and in further view of Bisbee et al. and the applicant's admitted prior art (see MPEP §2144.03 C., the applicant's failure to traverse the examiner's assertions in the previous office action are taken to be an admittance of prior art).

As to claim 8, Mathieson does not distinctly disclose wherein the transaction data in the electronic record is displayed according to a predefined layout set forth in an XSL style sheet associated with data comprising a copy of the electronic record as displayed, wherein the data is stored within a column of a database table.

Bisbee et al. teaches XML for formatting the data and having data that contains copies (see paragraph 0100). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use XML as a well-known standard which provides the advantage of being easily supported.

However, Mathieson as modified by Bisbee et al. still fails to expressly disclose how the data is presented to the user, and the data being stored in tables.

The applicant has admitted that use of XSL to provide a layout for displaying XML documents and the ability to store data in tables was well known in the art at the time of the invention. Thus it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Mathieson to include these things because XSL is the standard

language for determining XML document presentation and storing data in tables is makes retrieval efficient.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieson in view of Bisbee et al., Bertino et al, Lee et al., and the applicant's admitted prior art.

As to claim 26, Mathieson teaches a computer-implemented method of committing a transaction to a database, the method comprising:

receiving, at a computer system hosting a database management system that manages the database, information defining an application event that, upon occurrence, causes the database management system to intercept database transactions instantiated between database applications and the database management system and generate from data identified in the database transaction an electronic record that requires an electronic signature (see Figure 1, "Creating a Purchase Order", and see Figure 3 "Start");

receiving, at the computer system, information defining one or more fields for the data identified in the database transaction to be stored in the electronic record (see figure 1, various fields are displayed that are stored in the database as part of the workflow);

intercepting transaction data at a computer system from a database transaction initiated between a database application and the database management system in response to the user-created event monitored by the computer system that is triggered by the database transaction (see pages 9-10, "Document Routing Information", "When a document is assigned to a user, either for signature, or simply for information, the document status is updated.");

automatically creating an electronic record with the computer system prior to the database management system committing the associated database transaction to the database (see Figure 11 and Figure 12, which display records of status information of documents);

storing the electronic record in a common repository of electronic records that provides an audit trail that cannot be altered or deleted by users of the system (see page 10, "information is maintained as a permanent record of all the actions that were performed on the document);

executing a rule associated with the event to determine whether an electronic signature is required to connote review of the electronic record in order for the database management system to commit the database transaction to the database (see pages 2-3, "Signature Rights Database", "most financial documents require at least one signature to authorize payment... When the workflow reaches this step in the routing a special stored procedure is called which determines who as the right to sign for the expenditure according to our signature right database");

if execution of the rule results in a determination that an electronic signature is required, requesting, obtaining and verifying the electronic signature prior to the database management system committing the transaction into a database (see pages 2-3, "Signature Rights Database", "select the first person that has the right to sign and is not absent"); and

committing the transaction to the database in response to verifying the electronic signature (see figure 3, "End (Approved)").

Mathieson does not distinctly disclose:

wherein the electronic record comprises the intercepted transaction data prepared by the computer system using a set of XML mappings associated with the user-created-event as a well-

formed XML document in a character large-object (CLOB) format of a column of a database table; and

displaying the transaction data in the electronic record according to a predefined layout set forth in an XSL style sheet associated with the electronic record and storing a copy of the transaction data as displayed in a character large-object (CLOB) format of a second column of the database table.

Bisbee teaches the objects being XML documents, see paragraph 0071. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to use XML as a well-known standard which provides the advantage of being easily supported.

However, it is not expressly stated in the above mentioned references how the data is stored within the database. Bertino et al. teaches the storage of an unstructured XML document as a column of a table as a CLOB data type, see page 86 column 1. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include these features as it provides an organized method for storing the xml documents.

Mathieson as modified by Bisbee et al. and Bertino et al. still fails to expressly disclose how the data is presented to the user, and the data being stored in tables.

However, the applicant has admitted that use of XSL to provide a layout for displaying XML documents and the ability to store data in tables was well known in the art at the time of the invention. Thus it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Mathieson to include these things because XSL is the standard language for determining XML document presentation and storing data in tables is makes retrieval efficient.

Mathieson does not distinctly disclose receiving, at the computer system, information that maps data from underlying database tables associated with the database transaction to at least some of the one or more fields.

However, Lee et al. teaches this, see paragraphs 0042-44. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Mathieson to include the teachings of Lee et al. because these teachings would allow for the data from the record to be stored into database tables making it so that data stored is easier accessed and stored in a smaller space than if each form was stored as its own document.

Response to Arguments

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new grounds of rejection.

In response to the applicant's arguments that Mathieson "fails to demonstrate ... the status of the document by 'intercepting transaction data form the database transaction with the computer system prior to the database management system committing the database transaction being committed to the database based on the application event monitored by the computer system that is triggered by the database transaction'", the arguments have been fully considered, but are not deemed persuasive. Both figures 2 and 3 show processes that are intercepted by the database system when they need approval. The transactions are then sent to the proper authority so that they can be approved. All of these approves are implemented by the workflow and occur before the transaction is committed (approved).

Applicant's arguments in the paragraph on the middle of paged 12 were addressed with the new grounds of rejection.

With respect to the arguments made in the paragraph beginning with "applicants further respectfully..." on page 12, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob F. Bétit whose telephone number is (571)272-4075. The examiner can normally be reached on Monday through Friday 9:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Tony Mahmoudi/
Supervisory Patent Examiner, Art Unit
2169

jfb
21 Nov 2009